

Application No.: 10/823,729
Art Unit: 2818

Amendment Under 37 C.F.R. §1.114
Attorney Docket No.: 042341

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 5-11, 14-27 and 30-33 have been canceled without prejudice or disclaimer of the subject matter contained therein. Thus, claims 1-4, 12, 13, 28, 29 and 34 are pending in the present application, of which claims 1-4 are independent.

Noted – Priority Documents Received By USPTO

The indication (see present Office Action Summary, box 12(a)(1) as checked) that the certified copies of the priority documents have been received by the USPTO is noted with appreciation.

Claim Rejections Under 35 U.S.C. §112

Claims 1-4, 12, 13, 28, 29 and 34 are rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. By the foregoing amendments, the claims have been amended to comply with the written description requirement. Accordingly, withdrawal of the rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. §102

Claims 1-3, 12, 13, 28 and 29 are rejected under 35 U.S.C. §102(e) as being anticipated by the Miyashita et al. reference (U.S. Patent No. 5,861,054).

INDEPENDENT CLAIMS 1 AND 3

As an example, independent claims 1 and 3 recite, among other things, a feature of “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while said polishing slurry and water are supplied onto the polishing pad.” As will be explained below, at least this feature of claims 1 and 3 is a distinction over the Miyashita et al. reference.

The Miyashita et al. reference merely describes that a polishing slurry used in the first CMP step and the polishing slurry used in the second CMP step are the same polishing slurry. In particular, the Miyashita et al. reference states: “This first CMP step is performed by using a polishing slurry” (column 8, lines 14-15) and “In this second CMP step, the same polishing slurry as used in the first CMP step is used” (column 8, lines 29-30).

Regarding the Miyashita et al. reference, the Examiner states that “the polishing slurry contained in the second polishing material being the same kind as the polishing slurry of the first polishing material and water” (page 3, lines 8-11 of the office communication).

Applicants respectfully submit that the Miyashita et al. reference does not disclose “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while said polishing slurry and water are supplied onto the polishing pad” as recited in claims 1 and 3. In the Miyashita et al. reference, a thing supplied onto the polishing pad in the first CMP step and a thing supplied onto

the polishing pad in the second CMP step are the same thing. Hence, the noted feature, namely “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while said polishing slurry and water are supplied onto the polishing pad” is a distinction over the Miyashita et al. reference.

Anticipation requires the presence in a single prior art reference disclose of each and every element of the claimed invention, arranged as in the claim. In view of the distinction of claim 1 noted above, at least one claimed element is not present in the Miyashita et al. reference. Hence, the Miyashita et al. reference does not anticipate claims 1 and 3.

Claims 12 and 28 ultimately depend from claim 1, respectively, and so at least similarly distinguish over the Miyashita et al. reference. Hence, the Miyashita et al. reference also does not anticipate claims 12 and 28.

INDEPENDENT CLAIM 2

As an example, independent claim 2 recites, among other things, a feature of “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad,” “further polishing the surface of the film-to-be-polished with the polishing pad while a mixture of said polishing slurry and water is supplied onto the polishing pad.” As will be explained below, at least this feature of claim 2 is a distinction over the Miyashita et al reference.

The Miyashita et al. reference merely describes that the polishing slurry used in the first CMP step and the polishing slurry used in the second CMP step are the same polishing slurry. In particular, the Miyashita et al. reference states: “This first CMP step is performed by using a polishing slurry” (column 8, lines 14-15) and “In this second CMP step, the same polishing slurry as used in the first CMP step is used” (column 8, lines 29-30).

Applicants respectfully submit that the Miyashita et al. reference does not disclose “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while a mixture of said polishing slurry and water is supplied onto the polishing pad.” as recited in claim 2. In the Miyashita et al. reference, the thing supplied onto the polishing pad in the first CMP step and the thing supplied onto the polishing pad in the second CMP step are the same thing. Hence, the feature of claim 2, namely “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while a mixture of said polishing slurry and water is supplied onto the polishing pad” is a distinction over the Miyashita et al. reference.

By failing to show each and every element of claim 2 as arranged in the claim, the Miyashita et al. reference fails to anticipate claim 2. Claims 13 and 29 ultimately depend from claim 2, respectively, and so at least similarly distinguish over the Miyashita et al. reference. Hence, the Miyashita et al. reference also does not anticipate claims 13 and 29.

In view of the foregoing discussion, the rejection of claim 1-3, 12, 13, 28 and 29 is fully addressed. Accordingly, withdrawal of the rejection is respectfully requested.

Claim Rejections Under 35 U.S.C. §103

Claims 4 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over by the Miyashita et al reference (U.S. Patent No. 5,861,054).

INDEPENDENT CLAIM 4

As an example, independent claim 4 recites, among other things, a feature of “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while said polishing slurry and water are supplied onto the polishing pad”. As will be explained below, at least this feature of claim 4 is a distinction over the Miyashita et al. reference.

The Miyashita et al. reference merely describes that the polishing slurry used in the first CMP step and the polishing slurry used in the second CMP step are the same polishing slurry. In particular, the Miyashita et al. reference states: “This first CMP step is performed by using a polishing slurry” (column 8, lines 14-15) and “In this second CMP step, the same polishing slurry as used in the first CMP step is used” (column 8, lines 29-30).

Regarding the Miyashita et al. reference, the Examiner states that “the polishing slurry contained in the second polishing material being the same kind as the polishing slurry of the first polishing material and water” (page 3, lines 8-11 of the office communication).

Applicants respectfully submit that the Miyashita et al. reference does not disclose “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while said polishing slurry and water are supplied onto the polishing pad” as recited in claims 4. In the Miyashita et al. reference, the thing supplied onto the polishing pad in the first CMP step and the thing supplied onto the polishing pad in the second CMP step are the same thing. Hence, the noted feature, namely “polishing a surface of a film-to-be-polished formed over a semiconductor substrate with a polishing pad while only a polishing slurry is supplied onto the polishing pad” and “further polishing the surface of the film-to-be-polished with the polishing pad while said polishing slurry and water are supplied onto the polishing pad” is a distinction over the Miyashita et al. reference.

In view of the distinction of claim 4 noted above, at least one claimed element is not present in the Miyashita et al. reference.

Claim 34 ultimately depend from claim 1 and so at least similarly distinguish over the Miyashita et al. reference.

In view of the foregoing discussion, the rejection of claims 4 and 34 is fully addressed. Accordingly, withdrawal of the rejection is respectfully requested.

CONCLUSION

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

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Should the Examiner believe that telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below.

Please grant any required extensions of time and charge any fees due in connection with this request to deposit account No. 50-2866.

Respectfully submitted,

WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP

A handwritten signature in black ink, appearing to read "Michael J. Caridi", is written over the printed name and title.

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